

REMARKS

These remarks are in reply to the Office Action mailed January 12, 2007.

The Invention

The invention, as now presented in amended claim 26, features a computer system that includes a mouse that is movable with respect to a work surface and includes a position sensor operative to interact with the work surface to derive a position signal. A plurality of application-specific profile elements are provided for a plurality of applications that define tactile signals to be sent to the tactile actuator when interacting with the corresponding application. The profile elements include at least one textual profile element that is based on cells each containing a single alphanumeric character in a textual area, and at least one graphical profile element that is based on graphical elements in a graphical area.

As presented in the application on page 3, lines 27 - 28, the invention can provide a user with meaningful tactile feedback from a general-purpose computer with a simple and inexpensive tactile device. A conventional mouse that moves with respect to a work surface and includes a position sensor that interacts with the surface, for example, can be inexpensively equipped with a tactile actuator. The tactile information available from this actuator can supplement visual navigation and thereby increase productivity, reduce errors, or both. These enhancements can be particularly important in detailed authoring tasks of complex illustrated technical documents, such as patent applications. Indeed, patent attorneys frequently need to work closely with documents that include highly detailed and closely related textual and graphical information. The tactical feedback provided by the invention can significantly enhance this type of task.

A patent attorney who drafts an application based on drawings scanned into a drawing program, for example, may want to clean up stray marks in the drawing, add reference designators, and describe the items to which the reference designators apply in a separate word processing window. Tactile feedback in the drawing program gives the user an enhanced ability to erase small marks near material that is not to be erased, because the user can feel the mouse moving from pixel to pixel. Once part of a drawing is cleaned up, the user can quickly transition back to his application text and insert a reference number.

This operation is enhanced by the ability to drag the mouse to the precise insertion point for the reference designator, as the user can sense the mouse moving from character to character. As the user moves back and forth from text to graphics a number of times during a typical authoring session of this type, the overall productivity gains can be significant.

Claim 26 stands rejected as obvious over Rosenberg and Braun. Rosenberg discloses a three-dimensional cursor control interface with force feedback. His apparatus includes a user manipulatable object coupled to a linkage. A host computer can provide force-feedback commands, which are said to allow a user to feel force feedback via the user manipulatable object.

Braun also discloses a force feedback system that is based on a linkage. In the described embodiment, the linkage is a "five-bar" linkage, although alternate embodiments are said to be able to be equipped with fewer or greater numbers of linkages (col. 10, lines 25-32). Suggested uses for this system are for virtual reality games and medical simulations.

Yamanaka discloses a pointing system for use in notifying an operator of a cursor position on a display without relying on sight. It includes a pin display 91 that projects some of its pins upward to provide tactile information about a bit map display 20.

But nowhere do any of the asserted references disclose or suggest a textual profile element that is based on cells each containing a single alphanumeric character in a textual area in combination with a graphical profile element that is based on graphical elements in a graphical area. Nor do they address the use of tactile feedback in complex authoring tasks, such as the authoring of detailed technical documents. The three asserted references, therefore, whether taken alone or in combination, fail to disclose or suggest the invention as now claimed in amended claim 26.

Claim 39 distinguishes over the prior art of record for at least reasons similar to those advanced in support of claim 26. The remaining claims are dependant and distinguish over the prior art of record for at least the reason that they depend on an allowable claim.

Should further questions arise concerning this application, the Examiner is invited to call Applicant Kristofer E. Elbing at the number listed below. The Commissioner is

hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0750.

Respectfully submitted,

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Dated

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